Technical Information

LabPET4 scanner
TriFoil Imaging

Location address:
EPFL AVP CP CIBM AIT CH F0-608

Contact Person:
Dr Bernard Lanz (bernard.lanz@epfl.ch)

Description
CIBM owns an avalanche photodiode (APD) PET scanner situated adjacent to the preclinical MRI of the CIBM-AIT, ideal for investigators wishing to complement their rodent MR studies with PET measurement. All positron-emitter isotopes that can be produced off-site and transported to the CIBM can be measured. Physiology support is assured through the infrastructure of the CIBM-AIT.

Specifications
- **Geometry:**
  - ring diameter: 15.6 cm
  - Aperture / Transverse field of view: 11 cm
  - Axial field of view: 3.7 cm
  - **Spatial Resolution:** 1 mm
- **Number of APD Detectors:** 1536 (Phoswich pairs of LYSO and LGSO crystals)
- Fully parallel digital data processing and acquisition in PET imaging
- Static and dynamic tomographic acquisitions
- Integrated physiological monitoring system for ECG, respiration, and temperature

Additional related infrastructure
- Classified type-C working zone according to the Swiss Federal Radiological Protection Ordinance
- Proximity of CIBM MRI EPFL animalerie

Software:
- LabPET acquisition, calibration and normalisation software
- PMOD image analysis software